[JOINT COMMITTEE PRINT]

BACKGROUND AND ISSUES RELATING TO RESEARCH AND EXPERIMENTATION EXPENSE SOURCE ALLOCATION RULES

SCHEDULED FOR HEARINGS

BEFORE THE

SUBCOMMITTEE ON OVERSIGHT

OF THE

COMMITTEE ON WAYS AND MEANS

ON

OCTOBER 26, AND NOVEMBER 3, 1983

PREPARED BY THE STAFF

OF THE

JOINT COMMITTEE ON TAXATION

OCTOBER 20, 1983

U.S. GOVERNMENT PRINTING OFFICE

26-103 O WASHINGTON : 1983 JCS-49-83

J862-78

H782-50

CONTENTS

	Page
INTRODUCTION	1
I. SUMMARY	3
II. PRESENT LAW	5
III. CURRENT LEGISLATIVE PROPOSALS	25
IV. ISSUES	26
A. Equity of the 1977 Sourcing Rules: The Excess Credit Issue	26
B. Misallocation Under the Moratorium: The Double Deduction Issue	26
C. Export of Research and Development Activity	28
D. The Moratorium as an Incentive for Domestic R&D	29
E. Competitive Position of U.S. Firms in the World Marketplace	30
F. Matching R&D Expenses with U.S. and Foreign Income	31
G. Sourcing of Royalty and License Payments	37
H. Tax-free Transfer and Use of Intangibles Resulting from R&D	38

INTRODUCTION

This pamphlet provides a discussion of background and issues relating to the research and development allocation rules under Code sections 861–863 and Treas. Reg. sec. 1.861–8, the temporary Congressional suspension of the Regulation as it relates to U.S.-based research and development, and the interaction of the allocation rules with the foreign tax credit. The pamphlet also discusses transfers and use of the fruits of research and development overseas. The Subcommittee on Oversight of the House Committee on Ways and Means has scheduled hearings on these subjects for October 26 and November 3, 1983.

The first part of the pamphlet is a summary. Part two is a description of present law. The third part discusses current legislative proposals, and part four is a discussion of issues relating to Code sections 861–863, Treas. Reg. sec. 1.861–8's research and development allocation rules, the proposed extension of the suspension of those rules, the foreign tax credit, and tax-free transfers and use of intangible assets overseas.

I. SUMMARY

The issue before the Subcommittee is the allocation of research and development (R&D) expenses to U.S. and foreign income. This allocation is necessary in the determination of the amount of the foreign tax credit for some U.S. taxpayers.

The United States taxes the worldwide income of its taxpayers but permits them to credit foreign income taxes against U.S. tax imposed on foreign-source taxable income. The purpose of this foreign tax credit is to avoid double taxation on foreign income of U.S. taxpayers. However, the foreign tax credit should not reduce U.S. tax on the U.S. income of U.S. taxpayers.

To compute foreign (and U.S.) taxable income it is necessary to determine gross income and then to determine what deductions reduce that income. Because deductions allocated to foreign sources reduce foreign-source taxable income (and thus reduce the maximum amount of foreign taxes that may be credited in any one year), it can be advantageous to taxpayers that pay high foreign taxes to minimize allocation to foreign income.

To arrive at the proper definition of foreign-source taxable income, taxpayers must allocate expenses related to that income. There is not necessarily one "right" way to allocate expenses to foreign income in some situations. It is particularly difficult to allocate expenses in the case of R&D because expenses often cannot be related directly to any income. Even if R&D expenses can be related directly to income, that income is often generated years after the research is conducted. This problem is particularly troublesome because of concern with encouraging U.S. R&D.

Allocation of R&D expenses to U.S. and foreign income is important only to taxpayers who pay high foreign taxes. Taxpayers generally pay high foreign taxes only if they have substantial activities, such as manufacturing plants or oil wells, in foreign countries that impose high taxes. Congress has provided rules for allocation of expenses between U.S. and foreign sources since the early days of the income tax. In 1973, Treasury first published detailed regulations setting forth detailed rules for allocation of R&D expenses. The R&D rules in those regulations were subject to criticism by some taxpayers, who argued that they allocated too much R&D expense to foreign income.

In 1977 the Treasury Department published another set of regulations generally requiring a substantially smaller allocation of R&D to foreign-source income. In 1981, Congress, reacting to concern that the 1977 regulations could still encourage some taxpayers to perform R&D overseas, in effect placed a moratorium on the 1977 regulations and required that all U.S.-performed R&D be allocated to U.S. income. At that time, Congress mandated that the Treasury Department study the rules for allocating R&D expenses between U.S. and foreign income.

The Treasury Department studied those rules and issued a report indicating that—

- Had the Regulation fully been in effect in 1982, the $37 billion in privately financed domestic R&D spending in 1982 would have been reduced by approximately $40 million to $260 million.
- The moratorium reduced U.S. tax receipts in 1982 by approximately $100 million to $240 million.
- The moratorium reduces the tax liabilities only of firms with excess foreign tax credits. Whether a firm has excess credits does not seem to be closely related to the level of its R&D efforts.
- The moratorium has its most significant effect on large, mature multinationals, as opposed to small, relatively young high-technology companies. Of the Regulation's $100 million to $240 million estimated increase in U.S. tax liabilities, about 85 percent is estimated to be accounted for by 24 of the largest 100 U.S. firms.

The allocation issue is complicated by a number of factors. Tax law provides a number of incentives for R&D including immediate expensing of R&D expenditures (even though they yield no current income) and a 25-percent credit for certain incremental R&D. In addition, U.S. corporations may be able to take the fruits of R&D created in the United States and transfer them to a foreign subsidiary free of U.S. tax and without payment of a royalty to the U.S. taxpayer. As long as this foreign subsidiary does not distribute its earnings to the U.S. taxpayer, there will be no U.S. tax on the income from the fruits of the R&D. In some cases there will be no tax even when the U.S. taxpayer receives a distribution from the foreign corporation because foreign tax credits will offset the U.S. corporation's U.S. tax on that distribution. In general, only U.S. taxpayers who manufacture abroad (and who use the fruits of R&D abroad) are interested in the allocation of R&D expenses.

II. PRESENT LAW

Jurisdiction to tax income

Countries generally claim the right to tax income for one of two reasons: (1) the income arises in the country, or (2) the person earning the income resides in that country (or owes allegiance to that country). Many countries take the view that the country where income arises, the source country, has the primary right to tax the income.[1] A few countries tax only income that arises within their borders. The United States taxes income that arises in the United States ("U.S.-source income" or "U.S. income"); the United States also taxes income of a U.S. person [2] that arises outside that United States ("foreign-source income" or "foreign income").[3]

Foreign tax credit

U.S. persons are taxable on their worldwide income, including their foreign income. That is, the taxable income reported on the U.S. tax return of a U.S. person includes both U.S. and foreign income. A U.S. person who earns foreign income may incur foreign income tax. The United States has allowed U.S. persons to take full, dollar-for-dollar credit for foreign income taxes [4] since 1918. This credit directly reduces U.S. tax. Since 1921, however, foreign income taxes may reduce U.S. tax on foreign income, but not U.S. tax on U.S. income. Without this limitation (explained in more detail below), the foreign tax credit would permit foreign countries to preempt the U.S. tax base.

The purpose of the foreign tax credit is to prevent U.S. taxpayers from paying tax twice on their foreign income—once to the foreign country where the income arises and again to the United States as part of the taxpayer's worldwide income. This foreign tax credit system embodies the principle that the country where a taxpayer conducts a business activity (or earns any income), the source country, has the first right to tax any or all of that income, even if it is not the taxpayer's home country. Under this principle, the taxpayer's home country (residence country) has a residual right to tax that income, but recognizes the obligation to prevent double taxation. That obligation may totally eliminate residence country tax.

Some countries avoid double taxation by exempting foreign-source income from tax altogether. However, most developed countries, like the United States, minimize double taxation through a

---

[1] However, some countries, including the United States, modify this rule by treaty with respect to certain passive income, and grant to the country in which the person earning income resides, the residence country, the primary right to tax such income.

[2] U.S. persons are U.S. citizens, U.S. residents, U.S. partnerships, U.S. corporations, and, generally, U.S. trusts and estates (Code sec. 7701(a)(30)).

[3] Foreign earned income of a U.S. individual may be exempt from U.S. income tax under Code section 911.

[4] Foreign income taxes include income, war profits, and excess profits taxes paid or accrued during the taxable year to any foreign country (or possession of the United States).

foreign tax credit system, providing a dollar-for-dollar credit against home country tax liability for income taxes paid to a foreign country. Either system, the exemption system or the foreign tax credit system, requires a determination of what income is domestic and what income is foreign.

Foreign tax credit limitation

The U.S. system of international income taxation is based on the principle of capital-export neutrality. In a perfectly neutral system, a U.S. firm would confront the same total tax burden whether it operated at home or abroad. The United States attempts to achieve neutrality by taxing the worldwide income of U.S. firms and allowing a foreign tax credit to offset income tax payments made to foreign governments.

However, a fundamental premise of the foreign tax credit is that foreign taxes should not offset the U.S. tax on U.S.-source income. Accordingly, a statutory formula limits the foreign tax credit so that that the credit will offset only the U.S. tax on the taxpayer's foreign income. The U.S. tax system departs from perfect neutrality as a result of this limitation; the system is neutral provided that firms operate only in foreign countries which levy an income tax no greater than the U.S. tax on foreign-source income.

Without the foreign tax credit limitation, foreign countries could effectively levy a tax on U.S.-source income by raising their tax rates above the U.S. rate. By virtue of the credit, the U.S. Treasury would absorb the additional foreign tax burden. That is, post-credit U.S. taxes owed on U.S.-source income would be reduced.

The limitation operates by separating the taxpayer's total U.S. tax liability before tax credits ("pre-credit U.S. tax") into two categories: U.S.-source taxable income and foreign-source taxable income. Computing the limitation involves finding the ratio of foreign-source taxable income to total (pre-credit) taxable income. This fraction is multiplied by the tentative pre-credit U.S. tax on the taxpayer's total income to establish the amount of pre-credit U.S. taxes on the foreign income. This amount is the upper limit on the foreign tax credit. A simpler way of expressing the foreign tax credit limitation is "U.S. tax rate (perhaps 46 percent) times foreign taxable income." In other words, a firm can take a foreign tax credit for either foreign income taxes paid or 46 percent times foreign taxable income, whichever is less.

The following example illustrates the computation of the foreign tax credit limitation. Assume that the U.S. taxpayer has foreign-source taxable income of $300 and U.S.-source taxable income of $200, for total taxable income of $500. Assume further that the pre-credit U.S. tax on the $500 is $230 (i.e., a 46-percent rate). Since 60 percent ($300/$500) of the taxpayer's total worldwide taxable income is from foreign sources, the foreign tax credit is limited to $138, or 60 percent of the $230 pre-credit U.S. tax. Thus, a taxpayer with foreign taxes paid in excess of $138 will be allowed a foreign tax credit of only $138 (the excess taxes paid may be carried to other years). If the taxpayer has paid less than $138 in foreign taxes, the taxpayer will have a foreign tax credit equal to the amount of the taxes paid. Under the limitation, then, a taxpayer may credit an amount equal to either the pre-credit U.S. tax on his

foreign-source income or foreign taxes actually paid on foreign-source income (including foreign tax credit carryovers), whichever is less.

The manner in which the foreign tax credit limitation prevents foreign countries from effectively levying a tax on U.S.-source income and protects the U.S. Treasury's right to tax U.S.-source income may be illustrated as follows:

Assume that each of two taxpayers (taxable at a 46-percent U.S. rate) earns $100 of U.S. income; one of them earns no foreign income; the other earns $100 of foreign income and pays $80 of foreign tax on that income. The taxpayer with no foreign income owes $46 of U.S. tax. Absent a foreign tax credit limitation, the taxpayer with foreign income could credit the full $80 of foreign taxes. Then, the taxpayer with foreign income would owe only $12 of U.S. tax—the $92 pre-credit U.S. tax liability (on $200 of worldwide income) less the $80 credit. As a result of the high foreign taxes imposed, and allowed as a credit, the U.S. tax collected on the taxpayer's U.S. income would be reduced from $46 to $12. The limitation prevents such reduction of the U.S. tax base.

The foreign tax credit limitation thus tends both (1) to prevent other countries from taxing the U.S. tax base, and (2) to protect the Treasury's right to tax U.S.-source income.

Overall and per-country limitations

Historically, the foreign tax credit limitation has been determined based on either the taxpayer's total foreign income or the taxpayer's foreign income from each separate country, or both. These are known as the overall limitation and the per-country limitation, respectively.

Under the *overall method*, the taxpayer combines the income and losses from all foreign operations and allocates the pre-credit U.S. tax based upon this amount. Therefore, if 60 percent of the taxpayer's taxable income is from all foreign sources combined, then the foreign tax credit is limited to 60 percent of the pre-credit U.S. tax.

Under the *per-country method,* the taxpayer determines the foreign tax credit on a country-by-country basis. Thus, the taxpayer is allowed to take a foreign tax credit for taxes paid to any particular foreign country only to the extent that the taxes paid to that country do not exceed the limitation separately determined for that country.

In the Tax Reform Act of 1976, the Congress repealed the per-country limitation, making the overall limitation mandatory for most U.S. taxpayers. The overall limitation offers taxpayers an advantage over the per-country limitation. The overall limitation allows taxpayers to credit any country's income tax so long as total foreign income—whether or not from that country—is high enough. One country's high tax may offset U.S. tax on income from a country that imposes no tax or a low tax. Under the per-country limitation, on the other hand, taxes paid to any foreign country offset only that portion of U.S. tax which is allocable to sources within that country. Many countries with foreign tax credit systems require taxpayers to use a per-country limitation in some or all circumstances.

Excess foreign tax credits

The U.S. foreign tax credit limitation affects the worldwide tax liability of those taxpayers who, as a result of the limitation, have excess foreign tax credits. These are primarily U.S. oil companies operating abroad and U.S. manufacturers manufacturing abroad. Excess foreign tax credits result when the amount of foreign creditable income taxes paid or accrued in a given year exceeds the taxpayer's foreign tax credit limitation. In general, this occurs when a firm is paying more foreign taxes than the firm would have paid in U.S. taxes had it earned the same income in the United States.

Excess credits can arise from differences in the deduction allocation rules of the United States and those of other countries. For example, in those cases when a foreign country does not allocate an R&D deduction to income within that country, and the United States does, the foreign taxes will be higher than if the foreign country allowed the R&D deduction, and may exceed the foreign tax credit limitation.

Excess credits can also arise for a variety of other reasons, all of which involve the limitation. Differences between the income-sourcing rules of the United States (whose rules are generally consistent with international norms generally recognized by developed countries) and those of other countries may result in U.S. treatment of income taxed by another country as domestic income for purposes of the foreign tax credit. Timing differences in the reporting of income and deductions under U.S. and foreign tax laws may result in a taxpayer's being unable to utilize some foreign tax credits in a year in which income is reported in a foreign country but not in the United States. Domestic losses may reduce worldwide taxable income and pre-credit U.S. tax and, hence, the amount of foreign tax credits that can be used currently. Perhaps most importantly, effective corporate income tax rates in many industrialized countries are higher than U.S. income tax rates.

One way to reduce or eliminate excess credits is to shift foreign operations to a foreign country or countries with effective foreign income tax rates equal to or lower than the U.S. income tax rates. Another is to shift foreign operations to a foreign country or countries with deduction allocation and income-sourcing rules more closely resembling the U.S. rules.

Code source rules for income and deductions

History

Rules for determining the source of gross income items have been part of the U.S. income tax law since 1918. In that year, Congress provided some source rules in connection with the tax on the income of foreign persons from sources within the United States.[5] In 1921, the Congress enacted an expanded set of source rules for determining both gross income and net (taxable) income from sources within and without the United States.[6] Congress also, in that year, limited the foreign tax credit to foreign taxes on foreign-source income. The present Internal Revenue Code provisions gov-

[5] *See* Revenue Act of 1918, secs. 214(b) and 234(b).
[6] *See* Revenue Act of 1921, sec. 217.

erning the allocation of income and deductions between U.S. and foreign sources, sections 861–863, do not differ substantially from the provisions adopted in 1921; Congress has made only minor language changes over the years.

Current Code provisions

Sections 861 and 862 of the Code list items of gross income that arise from sources within the United States ("U.S. income" or "U.S.-source income") and from sources without the United States ("foreign income" or "foreign-source income"), respectively. U.S. income includes, generally, income from sales of property manufactured in the United States and sold in the United States, wages and salaries for work done in the United States, rent paid for property located in the United States, dividends paid by U.S. corporations, and interest paid by U.S. persons. Foreign income includes income from the sale outside the United States of property manufactured outside the United States, and royalties from the use outside the United States of patents, secret processes, and similar properties.

After determining the amount of *gross* foreign-source and U.S.-source income, taxpayers must determine *net* (or taxable) foreign-source and U.S.-source income. This determination brings deductible expenses into play. Generally, under sections 861 and 862, taxable income from U.S. or foreign sources is determined by deducting from the items of gross income arising from U.S. or foreign sources, as the case may be, (1) those expenses, losses, and other deductions properly apportioned or allocated to those particular items and (2) a ratable part of any expenses, losses, or other deductions which cannot definitely be allocated to some item or class of gross income (secs. 861(b), 862(b)).[7] Under these principles, for example, a taxpayer with $100 of U.S. gross income, $80 of U.S. expense, $100 of foreign gross income, $70 of foreign expense, and $10 of expense that cannot definitely be allocated to U.S. or foreign income, will split that $10 evenly between U.S. and foreign gross income. The taxpayer will thus have $15 of U.S.-source income ($100-$80-$5) and $25 of foreign-source income ($100-$70-$5).[8]

The Code generally articulates only the broad principles of how expenses reduce U.S. and foreign income.

Source rules for income and deductions—Regulation sec. 1.861–8

Treasury Regulation sec. 1.861–8 (the Regulation) applies in determining foreign-source income for calculation of the foreign tax credit limitation.[9] It provides specific rules for the treatment of expenses, losses, and certain other deductions. Generally, as the first step in calculating foreign-source income, the Regulation requires a

---

[7] Section 863 specifies that items of gross income, expenses, losses, and deductions other than those specified in sections 861 and 862 are to be allocated or apportioned to sources within or without the United States under regulations prescribed by the Secretary of the Treasury. Section 863 also contains general rules for computing taxable income when gross income derives from sources partly within and partly without the United States.

[8] This example ignores the possible impact of the deduction allocation rules of Treasury Regulation 1.861–8.

[9] It also applies in determining the taxable income of a taxpayer from specific sources and activities for purposes of a number of other "operative" Code sections. The operative section for the foreign tax credit limitation is section 904(a).

taxpayer to allocate his deductions to individual "classes" of gross income.[10] However, special rules are provided for the allocation and apportionment of R&D expenses; therefore, in general, treatment of R&D expenses depends on product categories rather than on classes of income.

The Regulation generally prescribes no single method for matching deductions to U.S.-and foreign-source income. The Regulation states that the method used in allocating and apportioning deductions must reflect the factual relationship between the deduction and the gross income. The Regulation contains a nonexclusive list of bases and factors to consider in apportioning deductions. Some of these relevant bases and factors are: a comparison of units sold (e.g., to foreign and U.S. buyers), a comparison of profit contributions, a comparison of gross sales or receipts, and a comparison of amounts of gross income. The Regulation's list contemplates that the higher the foreign sales or the higher the foreign gross income (for example), the greater, logically, the portion of expenses attributable to foreign-source income.

Several types of deductions are considered not definitely related to any gross income under the Regulation. These include, for example, the deductions for medical expenses and charitable contributions. These deductions reduce foreign and U.S. gross income pro rata.

The Regulation sets forth detailed allocation and apportionment rules for certain types of deductions, including those for research and development (R&D) expenditures, interest expenses, stewardship expenses, and legal and accounting fees and expenses. A detailed discussion of the rules for R&D deductions appears in the next section.[11]

The Regulation provides that if an affiliated group of corporations joins in filing a consolidated return, the Regulation's provisions are to be applied separately to each member.[12]

The Regulation was promulgated in its present form in 1977. It makes a number of significant changes including liberalizations, to a 1973 proposed revision[13] of the original Regulation, which was

---

[10] These classes include royalties, dividends, compensation for services, and gross income derived from business. A taxpayer must allocate his deductions on the basis of the factual relationships that exist between his deductions and his classes of gross income. The Regulation expresses this factual relationship concept this way: a deduction generally reduces a class of gross income if the deduction is incurred as a result of, or incident to, an activity, or in connection with property, from which the class of gross income has been, is, or could reasonably have been expected to be derived. If a deduction does not bear a definite relationship to a class of gross income, it is ordinarily treated as definitely related and allocable to all of the taxpayer's gross income; "all of the taxpayer's gross income" is then considered a class of gross income for purposes of applying the remainder of the Regulation. After a deduction has been allocated to a class of gross income, it is apportioned between a "statutory grouping" of gross income within the class, such as foreign-source income, and a "residual grouping", consisting of all other income in the class. The statutory grouping depends on the operative Code section. For example, when the operative Code section is 904(a) (relating to the foreign tax credit limitation), the statutory grouping is foreign-source income.

[11] In addition, the Regulation provides rules relating to deductions in excess of gross income; exempt, excluded, and eliminated income; substantiation of allocations and apportionments; and intercompany pricing adjustments under section 482 or other sections of the Code.

[12] Because of this separate member application, largely formal changes in a consolidated group's structure (e.g., the incorporation of a branch) may result in substantial allocation changes. Separate member application thus provides taxpayers with significant planning opportunities.

[13] 38 Fed. Reg. 15,840 (1973).

adopted in 1957.[14] These modifications were made in response to taxpayer comment on the proposed 1973 revision.[15]

Regulatory source rules for R&D deductions

In general

This part of the Present Law section of this pamphlet describes the temporarily suspended Treasury Regulation governing allocation of R&D expenses. It indicates that that Regulation embodies to some extent each of three theories for allocation and apportionment of R&D expenses. One theory, the place-of-performance theory, assumes that these expenses reduce income from the place where the R&D occurs. Another theory, the sales (or gross receipts) theory, assumes that R&D expense relates to the source of the taxpayer's gross receipts. A variation of this theory, the gross income theory, assumes that R&D expense relates to the source of the taxpayer's gross income. The Issues section of this pamphlet examines the strengths and weaknesses of these theories.

The R&D rules of Treasury Regulation sec. 1.861-8(e)(3) (the R&D Regulation) take as their premise that R&D "is an inherently speculative activity, that findings may contribute unexpected benefits, and that the gross income derived from successful research and development must bear the cost of unsuccessful research and development." The R&D Regulation prescribes rules for deducting R&D expenses from domestic- and foreign-source income.[16] As explained in more detail below, the Economic Recovery Tax Act of 1981 suspended these rules as they relate to U.S.-based R&D activity for two years; it provided that taxpayers shall allocate any R&D deductions for R&D conducted in the United States to U.S.-source income during the two-year period.

R&D expenses generally

The R&D Regulation's rules generally apply to research and experimental expenditures that a taxpayer deducts under Code section 174. As a general rule, business expenditures to develop or create an asset which has a useful life that extends beyond the taxable year, such as expenditures to develop a new product or improve a production process, must be capitalized. However, Code section 174 permits a taxpayer to elect to deduct currently the amount of "research or experimental expenditures" incurred in connection with the taxpayer's trade or business. The Code does not specifically define "research or experimental expenditures" eligible for the section 174 deduction election (except to exclude certain costs). Treasury regulations (sec. 1.174-2(a)) define this term to mean "research and development costs in the experimental or laboratory sense." This includes generally all such costs incident to the development of an experimental or pilot model, a plant process, a product, a formula, an invention, or similar property. The present regulations provide that qualifying research expenditures do not

---

[14] T.D. 6258, 1957-2 C.B. 368.

[15] An earlier proposed revision of the Regulation, published in 1966, 31 Fed. Reg. 10,405 (1966), was withdrawn at the time the 1973 proposed revision was published.

[16] The Regulation also prescribes rules for the allocation and apportionment of deductions between pairs of gross income groupings other than U.S.-source and foreign-source income.

include expenditures "such as those for the ordinary testing or inspection of materials or products for quality control or those for efficiency surveys, management studies, consumer surveys, advertising, or promotions."

Product categories

The R&D Regulation associates R&D expenses with income from product categories. For example, it contemplates that R&D performed for a taxpayer's chemical business will not reduce that taxpayer's income from a separate textile mill business. It provides that R&D expenditures which a taxpayer deducts under Code section 174 are ordinarily considered definitely related to all income "reasonably connected" with one or more product categories of the taxpayer.[17] The R&D Regulation enumerates 32 product categories based on two-digit classifications of the Standard Industrial Classification system. Some of these categories are: chemical and allied products; machinery, except electrical and electronic machinery, equipment and supplies; wholesale trade (subject to certain limitations); primary metal industries; textile mill products; and food and kindred products.

Ordinarily, a taxpayer will trace R&D expenditures to his product categories. When R&D is conducted with respect to more than one product category, the categories may be aggregated for allocation purposes; the categories may not be subdivided. When R&D cannot be clearly identified with one or more product categories (e.g., basic research), it is considered conducted with respect to all the taxpayer's product categories.

R&D to meet legal requirements

The R&D Regulation contemplates that taxpayers will sometimes undertake R&D solely to meet legal requirements (like noise pollution standards). In some such cases, the R&D cannot reasonably be expected to generate income (beyond de minimis amounts) outside a single geographic source. If so, those deductible R&D expenses reduce gross income only from that geographic source that includes that jurisdiction (Reg. sec. 1.861-8(e)(3)(i)(B)). For example, an R&D deduction for research performed solely to meet noise pollution standards mandated by the U.S. Government and which cannot reasonably be expected to generate significant foreign-source income reduces only U.S. source income.

After allocating deductions to meet legal requirements, the taxpayer generally matches income to deductions on the basis of the place of performance of the R&D and the source of income from sales of products. At the taxpayer's election, the matching can involve the source of gross income.

Automatic place-of-performance apportionment

The R&D Regulation presupposes that the place where R&D is performed (such as a laboratory) bears a significant relation to the source of the income it produces. Generally, 30 percent of deduct-

[17] Therefore, an R&D deduction generally reduces all gross income (related to the relevant product category or categories), rather than specific classes of gross income such as compensation for services, royalties, or dividends.

ible R&D expenses reduce gross income from the source where over half of the taxpayer's total deductible R&D expenses are incurred (Reg. sec. 1.861-8(e)(3)(ii)(A)).[18] For example, assume that a U.S. manufacturer of gasoline engines sells them in the United States and abroad and performs all its R&D in the United States. It first subtracts 30 percent of its R&D deduction from U.S. source income. (The manufacturer generally allocates the remaining 70 percent on the basis of sales, discussed below.)

The Regulation states that such place-of-performance apportionment "reflects the view that research and development is often most valuable in the country where it is performed, for two reasons. First, research and development often benefits a broad product category, consisting of many individual products, all of which may be sold in the nearest market but only some of which may be sold in foreign markets. Second, research and development often is utilized in the nearest market before it is used in other markets, and, in such cases, has a lower value per unit of sales when used in foreign markets."

Optional place-of-performance apportionment

A taxpayer can choose to apportion to the source where R&D is performed a percentage of his R&D deduction significantly greater than 30 percent if he establishes that the higher percentage is warranted because the R&D is reasonably expected to have a very limited or long-delayed application outside that geographic source. Taxpayers will choose this method if foreign use of R&D results is minimal. There is no obligation to use this method (even if U.S. use of R&D results is minimal). Taxpayers who use this method allocate any remaining portion of their R&D deduction on the basis of sales.

To establish that R&D is reasonably expected to have a very limited application outside the United States, a taxpayer generally must show that only some of his products within the relevant product category are sold outside the United States. This involves a comparison of the taxpayer's own sales of the products in domestic and foreign markets as well as sales of other users of the taxpayer's R&D: uncontrolled parties that have purchased and licensed intangibles from the taxpayer, and controlled corporations that can reasonably be expected to benefit from any of the taxpayer's research expense connected with the product category. For these purposes, the nonmanufactured product categories are those listed in the Standard Industrial Classification (SIC) manual (not limited to two-digit classification) and the manufactured product categories are certain seven-digit SIC categories used by the U.S. Census Bureau.

To establish that R&D is reasonably expected to have a long-delayed application outside the United States, a taxpayer generally must compare the commercial introduction of its own products and processes in the United States and foreign markets and commercial introduction by other users of its R&D. To evaluate the delay in the application of research findings in foreign markets, the taxpayer is to use a safe haven discount rate of 10 percent per year unless

[18] This rule applies to expenses remaining after allocation under the legal requirements test.

he can establish that another discount rate is more appropriate. There is no requirement that product categories be based on SIC or other standard classifications for these purposes.

Sales method of apportionment

If a taxpayer makes a place-of-performance apportionment, he must apportion the amount of his R&D deduction remaining, if any, under the sales (or "gross receipts") method of apportionment. Generally, under the sales method, the remaining R&D deduction amount is apportioned between domestic- and foreign-source income on the basis of relative amounts of domestic and foreign sales receipts (Reg. sec. 1.861-8(e)(3)(ii)(B)). Apportionment is on the basis of individual product categories.

Suppose, for example, that a taxpayer has foreign sales of $280, $200 in textiles and $80 in paper products, U.S. sales of $220, $200 in textiles and $20 in paper products, textile-related R&D expense of $100, and paper product related-R&D expense of $50. Assume that the taxpayer cannot allocate any portion of his R&D deduction under the legal requirements test or place-of-performance test. The textile sales are in, and the textile-related R&D is connected with, the product category Textile mill products. The paper product sales are in, and the paper product-related R&D is connected with, the product category Paper and allied products. The textile-related R&D expense of $100 is apportioned $50 to foreign-source income and $50 to U.S.-source income because the taxpayer had $200 in foreign sales in the Textile mill product category and $200 in U.S. sales in the Textile mill products category. The paper-product-related R&D of $50 is apportioned $40 to foreign-source income and $10 to U.S.-source income because the taxpayer had $80 in foreign sales in the Paper and allied products category and $20 in U.S. sales in the Paper and allied products category.

Sales, for purposes of the sales method of apportionment, include amounts received from the lease of equipment. In addition, a "look through" approach treats certain sales of parties other than the taxpayer as sales of the taxpayer in computing the apportionment of the taxpayer's R&D deduction between domestic- and foreign-source income. Under this look-through approach, the taxpayer's $200 in foreign textile sales in the above example might actually be sales of a foreign subsidiary licensing technology from the taxpayer or those of an uncontrolled party which has purchased secret processes from the taxpayer. The apportionment in such cases would be the same as in the preceding example.

The look-through rules provide that an uncontrolled party's sales of products involving intangible property obtained from the taxpayer are fully taken into account in determining the taxpayer's apportionment (and the apportionment of any other member of a controlled group of corporations to which the taxpayer belongs) if the uncontrolled party can reasonably be expected to benefit from the research expense connected with the product category (or categories). An uncontrolled party can reasonably be expected to benefit from a research expense if the taxpayer can reasonably be expected to transfer intangible property to that uncontrolled party. In the case of licensed products, if the amount of sales of the products is unknown, a reasonable estimate is to be made. In the case of

sales of intangible property, and in cases where a reasonable estimate of sales of licensed products cannot be made, the sales are considered equal to 10 times the amount received or accrued for the intangibles during the taxpayer's taxable year.

A controlled corporation's sales of products are taken into account, to the extent explained below, if the controlled corporation can reasonably be expected to benefit from the taxpayer's research expense connected with the product category (or categories). A controlled corporation can reasonably be expected to benefit from the taxpayer's research expense if the taxpayer can be expected to license, sell, or transfer intangible property to that corporation, or transfer secret processes to that corporation. Past experience with research and development is to be considered in determining reasonable expectations. However, if the controlled corporation has entered into a bona fide cost-sharing arrangement (in accordance with Treasury Regulation section 1.482–2(d)(4)) with the taxpayer for the purpose of developing intangible property, then that corporation is not reasonably expected to benefit from the taxpayer's share of the research expense.

A controlled corporation's sales of products within a product category are taken into account to the extent of the greater of (1) the amount of sales that would have been taken into account if the controlled corporation were an uncontrolled party and if any intangible property contributed by the taxpayer to the controlled corporation were treated as a license of that intangible property; or (2) the amount of sales that bear the same proportion to total sales of the controlled corporation as the taxpayer's voting power in the controlled corporation bears to the total voting power in the corporation. However, sales between or among controlled corporations or the taxpayer are not to be taken into account more than once.

Sales, for purposes of the sales method of apportionment, do not include sales of products sold solely within the United States if the taxpayer has, on account of such sales, made an optional place-of-performance apportionment of significantly greater than 30 percent of his R&D deduction to U.S. income and established that the R&D connected with the products sold is reasonably expected to have a very limited application outside the United States (see paragraph (g) of the Regulation, Example 10).

Optional gross income methods of apportionment

Sometimes, using optional "gross income" methods, taxpayers may reduce allocation of R&D expenses to foreign-source income by as much as 50 percent. Subject to certain limitations, a taxpayer may elect to apportion his R&D deduction under one of two optional gross income methods instead of the sales method. Under these optional methods, a taxpayer generally apportions the remainder of his R&D deduction (after allocation under the legal requirements test) on the basis of relative amounts of gross income from domestic and foreign sources (Reg. sec. 1.861–8(e)(3)(iii)). Examples given in the Regulation indicate that, for purposes of the Regulation's R&D rules, gross income from a direct sale equals sales receipts less certain expenses.

The basic limitation on the use of the optional gross income methods is that the respective portions of a taxpayer's R&D deduc-

tion apportioned to domestic- and foreign-source income using these methods may not be less than 50 percent of the respective portions that would be apportioned to each income grouping using a combination of the sales and place-of-performance apportionment methods. If this 50-percent test is satisfied with respect to both income groupings, the taxpayer may apportion the amount of his R&D deduction that remains after allocation under the legal requirements test ratably on the basis of foreign and domestic gross income, without limitation. If the 50-percent test is not satisfied with respect to one of the income groupings, then the taxpayer apportions to the income grouping with respect to which the 50-percent test is not satisfied, 50 percent of the amount of his R&D deduction which would have been apportioned to that income grouping under the sales method. The remaining amount of his R&D deduction is apportioned to the other income grouping. A taxpayer electing an optional gross income method then may be able to reduce the amount of his R&D deduction apportioned to foreign-source income to as little as one-half of the amount that would be apportioned to foreign-source income under the sales method.

For example, consider a taxpayer with $110 of U.S.-performed R&D expense and equal U.S. and foreign sales. Assume that $10 of the R&D expense is to meet legal requirements and is allocated to U.S.-source income. Of the remaining $100, 30 percent ($30) is exclusively apportioned to U.S.-source income under the automatic place-of-performance rule and the remaining $70 is divided evenly between U.S.- and foreign-source income, using the sales method. Under the optional gross income methods, the $35 foreign-source R&D allocation could be reduced as much as 50 percent, to $17.50. This could occur, for example, if the foreign sales were made by a foreign subsidiary that did not repatriate earnings to the U.S. corporation.

The optional gross income methods apply to all of a taxpayer's gross income, not gross income on a product category basis. If any member of an affiliated group which files a consolidated return uses an optional gross income method in a taxable year, then all members joining that return must use an optional gross income method in that taxable year.

Changes from 1973 proposed Regulation

The R&D rules of the present Regulation reflect a number of changes in and additions to the R&D rules included in an earlier proposed version of the Regulation issued in 1973.[19] Many of these modifications were liberalizations made in response to the comments of taxpayers on the 1973 proposed Regulation. The changes and additions include:

(1) Addition of the place-of-performance apportionment rules, that generally let a taxpayer apportion 30 percent or more of his R&D deduction to U.S.-source income;

(2) Addition of the legal requirements test, that lets a taxpayer allocate a portion of the R&D deduction solely to U.S.-source income when the corresponding R&D expenditures generate minimal income outside the United States and are mandated by a legal

[19] 38 Fed. Reg. 15,840 (1973).

requirement (such as a U.S. Food and Drug Administration testing requirement);

(3) The division of an R&D deduction between product categories rather than general classes of gross income such as licensing fees from intangible property or dividends; this change reduces allocations to foreign-source income of R&D expenditures related to products that are substantially different from the products that generate the foreign-source income; and

(4) The optional gross income methods of apportionment, which expressly permit a taxpayer to apportion some or all of the R&D deduction on a gross income-to-gross income basis, subject to limitations.

Treasury study and temporary suspension of Regulation

In the Economic Recovery Tax Act of 1981 (ERTA), the Congress directed the Treasury Department to study the impact of the R&D rules of Treasury Regulation sec. 1.861-8 on research activities conducted in the United States and on the availability of the foreign tax credit.

ERTA also provided that, for a taxpayer's first two taxable years beginning after the date of its enactment (August 13, 1981), all research and experimental expenditures (within the meaning of Code sec. 174) which were paid or incurred in those taxable years (and only in those taxable years) for research activities conducted in the United States were to be allocated or apportioned to sources within the United States for all purposes under the Code (sec. 223 of ERTA). ERTA did not change the Regulation's allocation rules for deductions other than that for research and experimental expenditures.

One reason that Congress cited for enacting this two-year suspension of the Regulation's R&D rules as they relate to U.S.-based research activity (the moratorium) was that some foreign countries do not allow deductions under their tax laws for expenses of research activities conducted in the United States. It was argued that this disallowance results in unduly high foreign taxes and that, absent changes in the foreign tax credit limitation, U.S. taxpayers would lose foreign tax credits. Because those taxpayers could take their deductions if the research occurs in the foreign country, it was argued that there was incentive for taxpayers to shift their research expenditures to those foreign countries whose laws disallow tax deductions for research activities conducted in the United States but allow tax deductions for research expenditures incurred locally.

Accordingly, Congress concluded that the Treasury should study the impact of the allocation of research expenses under the Regulation on U.S.-based research activities. While that study was being conducted by the Treasury and considered by Congress, Congress concluded that expenses should be charged to the cost of generating U.S.-source income, whether or not such research is a direct or indirect cost of producing foreign-source income.

Treasury study

On June 14, 1983, the Secretary of the Treasury submitted its report on the mandated study to the House Committee on Ways

and Means and the Senate Committee on Finance.[20] In summary, the Treasury report concludes that:

- Had the Regulation fully been in effect in 1982, the $37 billion in privately financed domestic R&D spending in 1982 would have been reduced by approximately $40 million to $260 million. Most of the reduction would have represented a net reduction in overall R&D undertaken by U.S. corporations and their foreign affiliates, rather than a transfer of R&D abroad.
- The moratorium reduces U.S. tax liabilities. If the R&D rules in the Regulation had been in effect in 1982, U.S. tax liabilities of U.S. firms would have been $100 million to $240 million higher.
- The moratorium reduces the tax liabilities only of firms with excess foreign tax credits. Whether or not a firm has excess credits does not seem to be closely related to the level of its R&D efforts.
- The moratorium has its most significant effect on large, mature multinationals, as opposed to small, relatively young high-technology companies. Of the Regulation's $100 million to $240 million estimated increase in additional U.S. tax liabilities for calendar 1982, about 85 percent is estimated to be accounted for by 24 U.S. firms on the list of the 100 largest U.S. industrial corporations compiled by *Fortune Magazine*.

An allocation of R&D expense to foreign income may increase a taxpayer's worldwide tax liability if the foreign government does not allow the apportioned expense as a deduction. Some allocation to foreign income, however, is appropriate on tax policy grounds when domestic R&D is exploited in a foreign market and generates foreign income. If an allocation is not made, foreign-source taxable income will be too high and the higher limitation may allow the credit for foreign tax to reduce U.S. tax on domestic-source income.

The Regulation's R&D rules reflect significant modifications of the 1973 proposed Regulation in response to taxpayer comments. Compared to the 1973 version of the Regulation, these modifications allow less R&D expense to be allocated to foreign income and recognize that R&D conducted in the United States may be most valuable in the domestic market.

On the ground that a reduction in R&D may adversely affect the competitive position of the United States, the report states that the Treasury supports a two-year extension of the present moratorium. The rationale for this extension is to give Congress an opportunity to consider the findings of the report while Congress and the Administration work to develop a coherent national program of R&D incentives.

Arthur Andersen study

The conclusions of the Treasury study may be compared with those of a similar study conducted by Arthur Andersen & Co. and sponsored by a number of business groups generally supporting an extension of the moratorium. The stated objectives of the Arthur Andersen study, which encompassed a survey of the major R&D spenders in the United States, were to analyze the impact of the

---

[20] Department of the Treasury, *The Impact of the Section 861-8 Regulation on U.S. Research and Development* (June 1983).

[21] Arthur Andersen & Co., *National Research and Development Study* (January 1983).

Regulation on corporate taxes and R&D investment, analyze the factors affecting management decisions to locate R&D in the United States or abroad, and examine trends in R&D investments over the past decade.

The primary findings of the survey of R&D spenders conducted by Arthur Andersen are summarized in Arthur Andersen's written report on the study: [21]

> "1. The R&D allocation requirements of Section 1.861-8 increase the overall tax liability of U.S. multinational corporations by generally placing firms in an excess foreign tax credit position."
>
> "2. Respondents to the survey considered pre-ERTA tax rules as a disincentive to conducting R&D in the U.S. and Regulation Section 1.861-8 was singled out as a detriment to domestic R&D operations by a significant group."
>
> "3. The United States is the only nation requiring the allocation of domestic R&D expenditures. In fact, other developed nations have instituted a variety of incentives to attract and stimulate R&D activities within their borders."
>
> "4. Management most frequently reviews R&D decisions in light of long-term competitiveness, or is influenced by factors leading to a favorable R&D environment. Characteristics like a sufficient supply of skilled manpower, adequate R&D facilities and various government incentives or disincentives played a significant role in these decisions."
>
> "5. Most corporations have shown an increase in their foreign R&D expenditures as a percentage of their worldwide R&D expenditures over the past ten years. Those companies with less than $2.5 billion in sales exhibited the greatest percentage increase in foreign to total R&D."
>
> "6. The percentage increase in respondents' foreign to total R&D exceeded the percentage change in the ratio of foreign sales to total sales. Thus, R&D investment occurred independently of expanding operations (as measured by sales). A significant reallocation of R&D abroad took place over the ten year period studied."
>
> "7. The growth on a percentage basis of respondents' foreign to total R&D manpower confirms the shift of R&D abroad. Employment of highly skilled scientists and engineering professionals increased faster abroad than in the U.S."
>
> "8. Most respondents believe that lifting the moratorium will encourage an expansion of foreign R&D investments in the future. In fact, 44% of the respondents stated that if the suspension was lifted, it would contribute to an excess foreign tax credit position in future years."

On the basis of the survey results, Arthur Andersen's report concludes that R&D investment in foreign markets by U.S. companies is increasing faster than in U.S. markets. Survey respondents considered a variety of factors, including the Regulation, in deciding where to locate R&D activities. These companies often concluded

---

[21] Arthur Andersen & Co., *National Research and Development Study* (January 1983).

that their best choice for R&D investments is in operations abroad. A significant number of survey respondents expressed the view that a permanent extension of the moratorium would represent an important step in rebuilding technological superiority in U.S. industry and in reversing the trends evidenced in the study.

Foreign countries' source rules for deductions [22]

It appears that few countries have developed detailed rules governing the allocation of expenses between foreign and domestic income (or taxable and nontaxable income). Thus, specific allocation rules for R&D expense, resembling those of Treasury Regulation sec. 1.861-8, are absent in most countries. This lack of detailed allocation rules may reflect a general lack of attention to the allocation issue. The most common approach to allocations appears to be a facts and circumstances test or a reasonableness test.

Many countries, however, recognize the general principle that expenses, to be deductible against income from a particular source, should be related to that income. These countries include Argentina, Australia, Canada, Finland, Hong Kong, Israel, Luxembourg, the Netherlands, New Zealand, South Africa, and the United Kingdom.

Some countries apparently have specific rules for R&D expense. Under Finnish law, for example, R&D expenses generally are deductible from the category or categories of income to which they relate. In New Zealand, R&D expenditures must be demonstrated to yield some benefit to the New Zealand economy to be deductible against New Zealand income. Under Swiss law, for purposes of foreign tax credits, 50 percent of foreign royalty is deemed to represent expense. In Japan, however, R&D expenses will not be allocated to offset foreign-source income. In addition, Canada apparently requires no allocation of R&D expense to foreign-source income.

Deductions in foreign countries for U.S. R&D expenses

U.S. income tax treaties generally require our treaty partners to allow appropriate deductions for expenses incurred in the United States. Generally, however, under the treaties, these countries are required to allow deductions only for R&D expenses directly related to local income. Some R&D conducted in the United States within a product category that includes products sold in a foreign country may not bear a direct relation to local income. A foreign country's disallowance of deductions for such R&D when those amounts are allocated to foreign income under the R&D Regulation may, therefore, comport with its treaty obligations.

Even absent a treaty, a deduction for overseas R&D is within the scope of many countries' general rules governing deductions for overseas expenditures. Denmark, Ireland, the United Kingdom, and South Africa, for example, apparently do not generally distinguish in their internal law between domestic- and foreign-based R&D expenses for purposes of the deduction each permits for R&D expenses. However, foreign countries that recognize the right of

---

[22] This section is based chiefly on International Fiscal Association, *Studies on International Fiscal Law: Rules for Determining Income and Expenses as Domestic or Foreign* (Paris 1980), and on research conducted by the staff of the Law Library, Library of Congress.

taxpayers to deduct overseas expenses may not allow deductions in sufficient amounts to offset the impact of the R&D Regulation.

Even if foreign countries allow deductions for R&D performed in the United States, they may impose gross withholding taxes on royalty payments to U.S. companies for that R&D. Such withholding taxes reduce the benefit of foreign deductions for U.S. R&D.

In any event, at least one country apparently does not generally permit deductions against domestic income of R&D expenditures incurred overseas. Mexico does not generally permit foreign enterprises subject to Mexican income tax to deduct payments made to foreign companies not subject to Mexican income tax. The expenses incurred in research and development, administrative and overhead expenses, and stewardship expenses normally would be included within the payments that the enterprise located in Mexico makes to the foreign country.

While some foreign countries may prohibit direct deductions for U.S.-performed R&D, a U.S. company may be able to obtain a deduction indirectly in some cases by increasing the price of technology and components sold by the corporate parent to its foreign subsidiary to reflect R&D costs. Transfer prices paid by foreign subsidiaries for technology and components often are deductible under foreign tax laws.

Examples

This section of the pamphlet presents examples that illustrate three methods of deducting R&D expenses. Each of these examples assumes that the taxpayer has $10,000 of U.S. sales and $10,000 of foreign sales (through a foreign branch). The taxpayer has $1000 of U.S. taxable income and $1000 of foreign taxable income (from the foreign branch) before allocation of R&D expense. The taxpayer incurs $400 of R&D expense, all in the United States.

Table 1 shows the calculation of U.S. and foreign income under three methods of apportionment. The first method, based on the proposed 1973 Regulation, allocates R&D expense solely on the basis of sales (gross receipts). The second method is one of those available in the 1977 Regulation. Under the Regulation, the taxpayer described above is first permitted to apportion 30 percent ($120) of R&D expense to U.S.-source income (partial place-of-performance apportionment). The remaining $280 ($400–$120) of R&D expense is split equally between U.S.- and foreign-source income on the basis of gross receipts, which results in $140 of foreign-source and $260 of U.S.-source R&D expense (sales method apportionment).[23] The third method of apportionment, provided under the current moratorium, allocates the full $400 of R&D expense to U.S.-source income (straight place-of-performance apportionment).

---

[23] In these examples, the optional gross income methods do not yield a smaller foreign-source apportionment of R&D expense than the sales method. Operation in subsidiary form instead of branch form could reduce the foreign-source gross income to zero if the taxpayer did not repatriate income from the foreign subsidiary. In that case, an optional gross income method could be used to reduce the foreign-source apportionment of R&D expense by 50 percent, from $140 to $70. This allocation would be more favorable to the taxpayer.

TABLE 1.—EXAMPLE OF APPORTIONMENT OF DOMESTIC R&D EXPENSE UNDER 1.861-8 REGULATION AND MORATORIUM

Item	United States source	Foreign source	Total
Gross receipts	$10,000.00	$10,000.00	$20,000.00
Income before R&D	1,000.00	1,000.00	2,000.00
R&D apportionment [1]:			
(1) 1973 proposal	200.00	200.00	400.00
(2) 1977 Reg	260.00	140.00	400.00
(3) Moratorium	400.00	0	400.00
Income after R&D [2]:			
(1) 1973 proposal	800.00	800.00	1,600.00
(2) 1977 Reg	740.00	860.00	1,600.00
(3) Moratorium	600.00	1,000.00	1,600.00
U.S. tax on worldwide income (pre-credit) [3]:			
(1) 1973 proposal	368.00	368.00	736.00
(2) 1977 Reg	340.40	395.60	736.00
(3) Moratorium	276.00	460.00	736.00

[1] Apportionment of R&D expense described in text.
[2] Income after R&D equals income before R&D reduced by the R&D apportionament.
[3] U.S. tax on worldwide income (before the foreign tax credit) equals income after R&D times the U.S. corporate tax rate (46 percent).

Table 2 illustrates the case where the taxpayer operates in a low-tax country and does not have excess foreign tax credits. The foreign country imposes tax at a 30 percent rate with no deduction for U.S.-performed R&D expense. The foreign taxable income is $1000 (not reduced by R&D expense), and the foreign tax is $300. In this situation, the taxpayer would pay $436 of U.S. tax (after credit) under all three methods of apportionment. The total tax liability of $736 ($300 plus $436) is identical to the tax which would be owed if the taxpayer moved his foreign operations to the United States. Thus, the U.S. R&D apportionment rules are a matter of indifference for taxpayers who have no excess credits.

Table 3 illustrates the case where the taxpayer operates in a high-tax country and has excess foreign tax credits. The foreign country imposes tax at a 60 percent rate with no deduction for U.S.-performed R&D expense. The foreign taxable income is $1000 (not reduced by R&D expense), and the foreign tax is $600. In this situation, the U.S. tax liability depends on the method of apportionment: $368 under the 1973 proposed Regulation, $340.40 under the 1977 Regulation, and $276.00 under the moratorium (because the U.S. tax base is then smallest). In this excess credit case, the taxpayer's total tax liability is lowest under the moratorium method of apportionment, compared to the proposed 1973 and 1977 Regulations. Under all three methods of apportionment, the taxpayer's total tax liability exceeds the tax which would be owed if the taxpayer moved his foreign operations to the United States. However, if the foreign country permits a deduction for royalty

payments made from the affiliate to the U.S. parent, then the total tax liability of the taxpayer could perhaps be reduced by a licensing arrangement.

TABLE 2.—TAX LIABILITY UNDER 1.861-8 REGULATION AND MORATORIUM: U.S. TAXPAYER WITHOUT EXCESS FOREIGN TAX CREDITS

[30 percent foreign tax rate without a deduction for U.S. R&D]

Item	1973 proposed regs.	1977 regs. (1.861-8)	Moratorium
U.S. tax on domestic income	$368.00	$340.40	$276.00
U.S. tax on foreign income	368.00	395.60	460.00
Foreign tax @ 30 percent rate	300.00	300.00	300.00
Foreign tax credit	−300.00	−300.00	−300.00
Total tax liability	736.00	736.00	736.00
Average tax rate (percent)	46.0	46.0	46.0

TABLE 3.—TAX LIABILITY UNDER 1.861-8 REGULATION AND MORATORIUM: U.S. TAXPAYER WITH EXCESS FOREIGN TAX CREDITS

[60 percent foreign tax rate without a deduction for U.S. R&D]

Item	1973 proposed regs.	1977 regs. (1.861-8)	Moratorium
U.S. tax on domestic income	$368.00	$340.40	$276.00
U.S. tax on foreign income	368.00	395.60	460.00
Foreign tax @ 60 percent rate	600.00	600.00	600.00
Foreign tax credit	−368.00	−395.60	−460.00
Total tax liability	968.00	940.00	876.00
Average tax rate (percent)	60.5	58.8	54.8

Tax deferral on earnings of foreign corporations

Foreign corporations (even those which are subsidiaries of U.S. companies) generally are taxed by the United States only to the extent they are engaged in business in the United States or derive investment income here. As a result, the United States usually does not impose a tax on the foreign-source income of a foreign corporation even though it is owned or controlled by U.S. persons. Instead, the foreign-source earnings of a foreign corporation generally are subject to U.S. income taxes only when they are actually re-

mitted to U.S. shareholders as dividends. The tax in this case is imposed on the U.S. shareholder and not the foreign corporation. The fact that no U.S. tax is imposed until, and unless, the income is distributed to the U.S. shareholders is generally referred to as "tax deferral".

An exception to the general rule of tax deferral is provided for "tax haven" activities of corporations controlled by U.S. shareholders (under the subpart F provision of the Code). Under these provisions, this tax haven type income is deemed to be distributed to the U.S. shareholders, and it is taxed to them currently whether or not they actually receive the income in the form of a dividend. This tax haven type income includes personal holding company income such as dividends and royalties; sales income from property purchased from, or sold to, a related person if the property was manufactured and sold for use, consumption, or disposition outside the country of the corporation's incorporation; and service income from services performed outside the country of the corporation's incorporation for or on behalf of any related persons. It does not include income from manufacturing that depends heavily on intangible assets. Therefore, tax haven type income that is subject to current U.S. tax can include income from licensing the right to use a U.S.-made secret process, but it does not include income from manufacturing abroad that uses a U.S.-made secret process.

Transfers of intangibles

Under present law, certain transfers by a U.S. person to a foreign corporation that would otherwise obtain tax-free treatment are taxable unless the Internal Revenue Service issues a ruling that they do not have as one of their principal purposes the avoidance of Federal income tax (sec. 367). The Internal Revenue Service has published guidelines stating when the Service will and will not issue rulings that transactions do not have a tax avoidance purpose. Under the guidelines certain transfers of property for the active conduct of a trade or business abroad are ordinarily not taxable (Rev. Proc. 68-23, 1968-1 C.B. 821 and other releases). However, transfers to foreign corporations of patents, trademarks, and similar intangibles for use in connection with a U.S. trade or business or with manufacturing for sale or consumption in the United States generally are subject to a toll charge under these guidelines.

By negative implication, transfers of intangibles for use purely in connection with a foreign trade or business or manufacturing for sale or consumption outside the United States generally may not be taxable. The Internal Revenue Service has authority, under present law, to find a tax avoidance purpose on such a transfer of an intangible asset to a foreign corporation.[24] As a general rule, the IRS does not currently exercise that authority. Therefore, if a U.S. corporation transfers know-how, secret processes, and foreign patents to its foreign subsidiary (located in a low-tax country) for use in manufacturing products for sale in foreign markets, that transfer may be free of U.S. tax.

---

[24] See H. Rep. No. 97-760 (Conference Report to accompany H.R. 4961, the Tax Equity and Fiscal Responsibility Act of 1982), 97th Cong., 2d Sess., at 512.

III. CURRENT LEGISLATIVE PROPOSALS

In the 98th Congress, two bills (H.R. 1887 and S. 654) would effectively make permanent the two-year suspension of Treas. Reg. sec. 1.861-8 as it relates to U.S.-based R&D expenditures. H.R. 1887 and S. 654 would amend Code section 861(a) to provide generally that all qualified research and experimental expenditures (within the meaning of sec. 174) attributable to activities conducted in the United States are to be allocated to sources within the United States. H.R. 1887 would apply to taxable years beginning after 1982. S. 654 would apply retroactively to taxable years beginning after 1980.

The Senate Finance Subcommittee on Taxation and Debt Management held a public hearing on S. 654 on June 17, 1983.[25] The proceedings of that hearing appear in S. Hrg. 98-344, "Deduction of Research and Experimentation Expenditures for Research in the United States against U.S. Source Income." Neither House has taken other action on S. 654 or H.R. 1887.

[25] For a description of S. 654 see Joint Committee on Taxaton staff pamphlet "Description of Tax Bills (S. 654, S. 738, S. 1147, S. 1194, and S. 1195)," JCS-18-83 (May 26, 1983). It may be unclear how the moratorium affects (and how S. 654 and H.R. 1887 would affect) the allocation and apportionment of R&D expense to the income of domestic international sales corporations (DISCs) or to the foreign-source income component of income partly from within and partly from without the United States.

26-103 O - 83 - 2

IV. ISSUES

A. Equity of the 1977 Sourcing Rules: The Excess Credit Issue

There are two basic reasons for the limitation on the amount of the foreign tax credit. First, with an unlimited credit, foreign countries could effectively levy a tax on U.S. source income by raising their tax rates above 46 percent. Second, absent a limitation, the U.S. Treasury would bear the burden of this foreign tax (to which taxpayers could be indifferent). In another words, the Treasury would lose U.S. tax revenue on U.S.-source income.

As a consequence of limiting the foreign tax credit, a firm that operates in a high tax foreign country may pay more tax than a similar firm operating exclusively in the United States. The added tax burden is equal to the difference between the U.S. tax on (the U.S. definition of) foreign-source income and the foreign tax on the (foreign definition of) foreign-source income. This additional burden is large when (1) the foreign tax rate is much larger than 46 percent, and/or (2) the foreign definition of the tax base is much broader than the U.S. definition of foreign-source income.

Opponents of the R&D allocation rules in Treas. Reg. sec. 1.861-8 argue that the provisions are unfair since, in certain situations, firms are denied the effect of a full deduction for domestic R&D expense. This occurs when foreign taxes exceed U.S. taxes on foreign-source income because the foreign country denies a deduction for a share of U.S.-performed R&D expense. Opponents argue that the foreign tax credit limitation should be increased by permanently suspending the apportionment of domestic R&D expense under the Regulation.

Proponents of the Regulation argue, however, that to increase the credit unilaterally (by suspending the R&D Regulation) would effectively allow foreign governments to levy a tax on U.S.-source income, the burden of which would be borne by the U.S. Treasury. In their view the fact that excess credits may arise does not prove that the R&D sourcing rules are flawed. In addition, they argue that because taxpayers with excess credits are effectively exempt from U.S. tax on their foreign income, the portion of their R&D deductions that help generate such foreign income should not be deductible. They point out that other expenses that generate tax-free income—such as interest expense on borrowings made to purchase tax-exempt securities—are generally not deductible.

B. Misallocation Under the Moratorium: The Double Deduction Issue

As noted above, advocates of the moratorium argue that companies in an excess credit position are denied the effect of a full deduction for U.S.-performed R&D. It can be argued, however, that

under the moratorium, excess credit companies may receive a double deduction for a portion of U.S.-performed R&D expense.

The double deduction case arises under the moratorium when the parent company deducts 100 percent of domestic R&D expense against U.S.-source income, and its foreign affiliate, in accordance with a tax treaty, deducts (against foreign tax) a royalty payment for exploitation of this R&D. A example shows how a double deduction for R&D can occur. Consider first a company which has excess credits, assume for simplicity due to earlier year operations in high-tax jurisdictions. The company does all its research in the United States and manufactures both in the United States and abroad. For simplicity, the foreign tax rate in the current year is assumed to be equal to the 46-percent U.S. tax rate. The company has $150 of worldwide income before R&D expenses of $50. This $150 consists of $75 of gross U.S. income and $75 of gross foreign income. The foreign country allows no deduction for U.S. R&D. Thus, after the R&D deduction, worldwide taxable income is $100 and U.S. tax on worldwide income is $46. In the absence of a royalty payment, and under the moratorium, the U.S. and foreign definitions of net non-U.S.-source income are the same. The total tax burden (U.S. plus foreign) is $46 dollars.[26] This is the same tax burden which the parent company would confront if it operated exclusively in the United States.

Now assume the same facts except that the foreign affiliate makes a $10 payment to the parent for current use of the proprietary knowledge produced by the $50 of domestic R&D. In tax treaty countries, foreign governments generally allow a deduction for royalty payments made to the U.S. parent that are directly related to local income; in this case, pursuant to such a treaty, the foreign country's definition of its domestic-source income is reduced by $10, and foreign taxes are reduced by $4.60. The U.S. definition of foreign-source income is unchanged (since the royalty is treated as foreign-source income of the parent), so the foreign tax credit limitation is unaffected. The total tax burden is now $41.40 of which $11.50 is tax paid to the United States and $29.90 is tax paid to the foreign country.[27] The excess credit company has reduced its total tax liability by $4.60 from $46 to $41.40 by causing its foreign affiliate to make a $10 royalty payment to the parent company. The reduction occurs because the R&D expense has effectively been deducted a second time. The first deduction, as in the first example above, was the $50 reduction of U.S.-source income (corresponding to $50 of R&D expense) mandated by the moratorium. The second deduction effectively occurs when foreign taxes are reduced as a result of the $10 royalty payment but U.S. taxes are not correspondingly increased (since the company is in an excess credit position). As a result of the double deduction, the company's total tax

---

[26] The $150 of worldwide income before R&D expense is $75 U.S.- and $75 foreign-source income. Under the moratorium, U.S.-source income is $25 ($75-$50), while foreign-source income is $75. Thus, U.S. tax on U.S.-source income is $11.50 (46 percent of $25) and U.S. tax on foreign source income is $34.50 (46 percent of $75). Since the parent company is in an excess credit position, the foreign tax credit is equal to the U.S. tax on foreign source income ($34.50).

[27] The foreign definition of the affiliate's tax base is $65 ($75-$10) since the $10 royalty payment is allowed as a deduction. Consequently, the foreign tax liability of the affiliate is $29.90 (46 percent of $65). Hence, the total (U.S. plus foreign) tax liability of the company is $41.40 ($11.50 plus $29.90).

burden ($41.40 on $100 of worldwide income) is less than it would be if it operated exclusively in the United States or the other country, each of which imposes $46 of tax on $100 of worldwide income.

Critics of the moratorium argue that in order for the foreign tax credit to operate properly, only the portion of expenses incurred for the production of U.S. income should reduce U.S. source taxable income. From this viewpoint, the moratorium is flawed since it permits all domestic R&D expenses to be deducted from U.S.-source income even where a portion of this expense is related to the production of foreign-source income. Those in favor of the moratorium, however, argue that the R&D allocation rules are arbitrary, complex, and counterproductive to the U.S. economy.

C. Export of Research and Development Activity

The principal reason for the moratorium on apportionment of R&D expense under the Regulation was Congressional concern that the regulation encouraged multinational businesses to shift R&D activities abroad. However, according to the Treasury Department's June 1983 study, the impact of the R&D Regulation is unclear. Based on National Science Foundation data, the Treasury study shows that, following the promulgation of the Regulation in 1977, the foreign share of R&D expenses by U.S. companies and their foreign affiliates dropped from 9.08 percent in 1978 to 8.20 percent in 1981.[28] Thus, the aggregate statistics do not show a shift of R&D offshore after the Regulation was adopted; however, the Treasury study notes that the foreign share of R&D does not depend solely on taxes.

The Treasury study also reviewed several economic analyses of the overseas R&D activity of multinational companies. This survey indicated that multinationals locate R&D offshore primarily to transfer developed technology or to adapt technology to indigenous factors of foreign markets, rather than to develop new technologies or new products for a worldwide market. The literature survey also indicated that there are important efficiency advantages of centralized R&D which make the establishment of offshore R&D units unattractive to multinational companies. The Treasury study concludes that, "Based on these considerations, it appears that foreign R&D is not highly substitutable for R&D performed in the United States." [29]

The primary importance of factors other than taxes in the R&D location decision is confirmed in a study by Arthur Andersen and Company. Based on a survey of 85 major multinational firms, the Arthur Andersen study found that,[30]

> The results indicate that the most common incentive for determining timing, placement, and scope of R&D projects is the competency of the available work force. The geographical location of necessary raw materials and research data was the second most frequent response.

---

[28] Department of the Treasury, *The Impact of the Section 861-8 Regulation on U.S. Research and Development* (June 1983) p. 25.
[29] Treasury study, p. 28.
[30] Arthur Andersen and Co., *National Research and Development Study* p. V-3.

While the Arthur Andersen study finds that taxes have some influence on the location of R&D investment, this factor was not of primary importance to the firms included in the survey.

Based on the Treasury study, and the other economic analyses cited therein, it would appear that there is little evidence that the 1977 Regulation resulted in a large shift of R&D offshore, or that such a shift would occur if the Regulation's R&D rules were reimplemented. Also, it should be noted that shifting R&D activity offshore is not the only tax planning strategy available for reducing excess credits. An alternative option is to shift manufacturing activity from a high tax foreign country to a low tax country. (Ireland is a popular low tax country for firms manufacturing for the European market). However, there may be situations where a U.S. company can most easily reduce excess credits by locating R&D offshore, and under these circumstances tax considerations may influence the location of R&D activities.

Opponents of the moratorium argue that the moratorium has some tendency to encourage firms to shift manufacturing operations and, hence, manufacturing jobs overseas. The reason is that suspending the Regulation will reduce the tax costs of operating in high tax foreign jurisdictions for some taxpayers, thereby increasing the relative attractiveness of operating abroad. Suspending the Regulation reduces tax costs because the Regulation reduces foreign-source income and, therefore, under the foreign tax credit limitation, the amount of foreign taxes that can be credited to reduce U.S. tax. This makes it easier for some taxpayers to use foreign tax credits to reduce U.S. taxes. Proponents of the moratorium argue that non-tax factors play at least as big a part in determining locations of plants (and manufacturing jobs) as they do in determining locations of laboratories (and R&D jobs).

D. The Moratorium as an Incentive for Domestic R&D

As indicated above, some argue that firms may reduce research expenditures as a result of the Regulation's R&D rules. The suspensions of the R&D rules, it is asserted, is an R&D incentive.

The Treasury study examined this issue and found that as a result of suspending the Regulation's R&D rules, privately financed U.S. R&D was increased in 1982 by .27 to .65 percent or about $40 million to $260 million. The revenue cost of the moratorium in 1982 was estimated to be in the range of $100 million to $240 million. Thus, the increase in domestic R&D per dollar of revenue loss is estimated to range from $0.17 (40/240) to $2.60 (260/100).

The question arises whether an indefinite suspension of the R&D rules is an efficient method for stimulating R&D compared to other tax incentives, or to government sponsored R&D. When the Federal Government funds an R&D project, there is a one dollar increase in R&D for each dollar authorized. However, if the Regulation is permanently suspended, the tax revenues foregone could exceed the dollar value of increased private R&D. The Treasury study also points out that the tax benefits of dropping the R&D rules will be highly concentrated: 24 firms are estimated to obtain 85 percent of the benefit. In addition, the benefit will go only to firms with excess foreign tax credits and these may not be the same firms

with the most promising research opportunities. The Treasury study concludes that,

> All firms are not affected uniformly by the suspension of the regulation. It only reduces the tax liabilities of firms in an excess foreign tax credit position. These firms earn from 16 percent to 22 percent of the worldwide income of U.S. manufacturing corporations. Whether or not a firm is in an excess credit position does not seem to be closely related to the level of its R&D effort. The suspension of the the regulation has its most significant impact on large, mature multinational firms, as opposed to small, emerging, high technology companies.

Thus, the Treasury study implies that there may be more effective, less haphazard methods to increase domestic R&D, at a lower revenue cost, than the suspension of the R&D rules of the Regulation.

E. Competitive Position of U.S. Firms in the World Marketplace

Opponents of the Regulation claim that U.S. firms are at a disadvantage relative to foreign firms since, according to the Arthur Andersen and Co. study, no country other than the United States specifically requires allocation of a portion of domestic R&D expense to foreign source income. However, foreign countries may require allocations of domestic R&D expense to foreign source income under their general tax principles. Moreover, in order to determine the relative tax advantage of international competitors in the conduct of R&D, it is necessary to examine all aspects of the tax system which influence the rate of return on R&D development projects. The U.S. tax system provides a number of incentives to R&D which may, on balance, offset the Regulation's R&D rules. First, most R&D expenses may be deducted in the year they are incurred even though the income resulting from the use of this knowledge may stretch out over many years (e.g., as long as 17 years in the case of a patent). Second, under the ERTA, a 25 percent tax credit is allowed on incremental R&D expenditures. Third, the ERTA lowered the top rate on capital gains income to 20 percent. The recent popularity of technology-oriented start-up companies with high bracket investors may be attributable in part to the overall favorable tax treatment of R&D investment. Finally, as a result of the possessions tax credit (Code sec. 936), U.S. companies with possessions affiliates can effectively exempt from U.S. tax half of the income attributable to R&D.

A recent quantitative study by the Canadian Tax Foundation concluded that, on balance, the U.S. tax incentives for R&D are more generous than the incentives offered by: the United Kingdom, France, Germany, Japan, Italy, Austria, Belgium, Denmark, Norway, Sweden, Brazil, Hong Kong, Korea, Mexico, and Taiwan. Only Canada, Spain, and Singapore were found to offer larger tax incentives for R&D than the United States.[31]

---

[31] Donald G. McFetridge and Jacek P. Warda. *Canadian R&D Incentives: Their Adequacy and Impact.* Canadian Tax Foundation, Tax Paper No. 70 (February 1983) p. 72.

Thus, the international competitiveness of U.S. companies in high technology industries is influenced by a variety of provisions in the Code. While the R&D allocation rules may disadvantage U.S. companies relative to their foreign competitors, other provisions of the Code, such as the R&D credit, may offset this disadvantage.

F. Matching R&D Expenses with U.S. and Foreign Income

In general.

U.S. income tax law generally attempts to match deductions for expenditures with the income that the expenditures help generate. This is done to measure income more accurately for purposes of imposing tax on the income from a particular source, a particular year, or a particular activity. To accurately measure income in a particular year, for example, capital expenses generally are not deductible in full in the year paid or incurred, but must be deducted ratably over the period of years during which they generate income. To accurately measure income from taxable activities such as investments, a deduction is generally denied for interest paid or incurred with respect to funds borrowed to invest in securities yielding tax-exempt income. And to accurately measure foreign-source income and U.S.-source income, the Code requires allocation and apportionment of deductions between foreign and domestic gross income. Without a computation of foreign-source income, the foreign tax credit could not properly function.

Determination of the source of income that R&D deductions should offset, however, raises difficult issues. Part of the difficulty arises because laboratories and other R&D facilities are cost centers, not profit centers. Much R&D never results in any income. The scientific method of trial and error sometimes produces no commercially valuable results. Expenses incurred for unsuccessful research are generally tax-deductible, however. For the foreign tax credit system to function, those expenses for unsuccessful research must reduce foreign income or U.S. income (or some of each).

In general, expenses that do not yield current income are not currently deductible. Congress, however, has enacted a special rule (sec. 174) generally making R&D expenses currently deductible even though it will not yield current income. Expenses that reduce taxable income must figure into the calculation of the foreign tax credit limitation. A foreign tax credit system that allocates current R&D expenses against current income may yield distorted results, because current income often arises more from past R&D than from current year R&D. This timing difference tends to distort any system that allocates current R&D expenses against current income. For instance, a taxpayer who has just begun foreign operations may have little current measurable foreign activity. If foreign operations expand in the future, however, current research may significantly benefit future foreign operations. If the taxpayer performs no R&D in those later years of profitable foreign operations, it is likely that any method (over the entire period) will overstate foreign income.

Moreover, it is especially difficult to allocate basic research expenses to foreign or U.S. income. And even focussed research yields unanticipated results.

In summary, accurate tracing of R&D expenses to income presents severe practical problems. The suspended R&D Regulation provides taxpayers with a limited opportunity to trace R&D expenses to income. Tracing is available only on the basis of "reasonable expectations" of "very limited or long-delayed application" of the R&D results outside the United States. The taxpayer must satisfy the Commissioner of the propriety of the tracing. The vagueness of this standard illustrates the difficulty of a tracing approach.

The Regulation's R&D rules embrace elements of each of three competing theories of R&D deductions (in addition to their limited tracing approach). The Regulation's exclusive geographic apportionment rules (referred to above as the automatic and optional place-of-performances rules) are an application of the place-of-performance theory; the sales method is an application of the gross sales theory; and the optional gross income methods are an application of the gross income-to-gross income theory. The moratorium is an application of the place-of-performance theory only.

Place-of-performance rules.

Advocates of a place-of-performance theory argue that there is no alternative to it that is not vague or arbitrary. Under the moratorium, taxpayers may deduct all expenses for R&D incurred in the United States from U.S. source income. The moratorium thus imposes a straight place-of-performance rule. In some cases, the place-of-performance rule of the moratorium may produce the theoretically proper measure of U.S. and foreign income. For example, a taxpayer conducts organic chemical research in the United States on methods of eliminating an agricultural pest found only in this country. The taxpayer earns all of its foreign income by manufacturing and selling inorganic chemical compounds in Europe. The taxpayer earns U.S. income by manufacturing and selling both organic and inorganic chemical compounds in the United States. The taxpayer's organic chemical research apparently bears little or no relation to its foreign income. For that reason, the expenses of that research should perhaps not reduce foreign income at all.

Opponents of a straight place-of-performance rule would not agree to its application in this case. There is some chance that the taxpayer's research will result in products that the taxpayer can manufacture abroad or processes that the taxpayer can use to earn foreign income.

Opponents of a place-of-performance rule argue that the suspended R&D Regulation would reach the proper result by treating this case as one involving very limited foreign use of the R&D. Under the R&D Regulation's optional place-of-performance rule, presumably less than 100% of the taxpayer's R&D deduction would be apportioned to U.S. income.[32] Proponents of a straight place-of-per-

[32] The R&D Regulation's optional place of performance rule has provoked debate. As discussed above, the R&D Regulation permits a taxpayer who qualifies for a 30-percent apportionment of his R&D deduction to income from one geographic source to apportion to that income a percentage of his R&D deduction "significantly greater" than 30 percent. He may do so if he establishes that the higher percentage is warranted because the R&D is reasonably expected to have a very limited or long-delayed application outside the geographic source. The R&D Regulation does not define the term "significantly greater." One example given in the Regulation (Example (10)) suggests that an apportionment to income from the geographic source that is 34 per-

Continued

formance rule (the moratorium) reply that the optional place-of-performance rule yields complexity and confusion in this case.

Alternatives to the place-of-performance method.

In some cases, the gross sales method (the rule of Reg. sec. 1.861-8(e)(3)(ii)(B)) or the gross income-to-gross income method (the rule of Reg. sec. 1.861-8(e)(3)(iii)) may produce the theoretically proper measure of U.S. and foreign income. Assume that a taxpayer owns U.S. and foreign patents for one drug. The taxpayer's only business is manufacturing that drug. The taxpayer manufactures in two factories, one in the United States and one in Germany (through a German branch). Profit margins and costs of production in these two factories are identical. The taxpayer conducts research in a U.S. laboratory. The focus of that research is improvement of the one drug patent that the taxpayer owns. Both gross foreign sales and income and gross U.S. sales and income appear to bear some relationship to the U.S. R&D. Comparison of gross sales is administratively feasible, and might be a proper way of allocating R&D expenses. Comparison of gross income is also administratively feasible, and would yield the same allocation of R&D expenses in this case.[33]

Proponents of a place-of-performance rule would argue that the U.S. R&D is more likely to produce U.S. income than foreign income, however. Any improvements that the R&D creates may be more likely to appear first in the U.S. market. There are several factors that could cause first U.S. appearance, including: proximity of the U.S. laboratory to the U.S. plant, familiarity of researchers with the U.S. market, greater political risk in the foreign country, familiarity of the company's marketers with the U.S. market, competition in the foreign market from unsafe drugs that cannot meet U.S. standards, and likelihood that foreign competitors will infringe on the improvement. Moreover, although the R&D is focussed on an existing product, it might well result in a new product or process that produces only or primarily U.S. income.

Comparison of gross sales and gross income methods

Both the gross sales rule and the gross income rule involve difficulties. A sales method involves practical difficulties. For example, assume that a U.S. taxpayer who manufactures and sells an automobile windshield defrosting device in the United States and licenses the device for manufacture and sale abroad by foreign automobile makers. The taxpayer's gross U.S. sales are its sales of the windshield defrosting device in the United States. Determination of gross foreign sales is more difficult. One application of the sales method and look-through rules would compare these sales with those of the foreign licensee, which are sales of automobiles. The automobile sales reflect many cost components of the automobiles

---

cent higher than the apportionment yielded by application of the base line percentage might, at least in some circumstances, be considered significantly greater; another example given in the Regulation (Example (9)) suggests that a 6-percent differential would not be. Taxpayers have argued that the Regulation should give taxpayers more specific guidance on this point.

[33] For simplicity, the example equates profit margins and costs of production in the two factories, so that the two methods yield the same allocation. A comparison of the two methods when they do not yield the same allocation appears below.

other than the windshield defrosting device, so this comparison seems inappropriate.

To deal with the difficulty of estimating third-party licencees' (and purchasers') sales, the R&D Regulation adopts a deemed sales price for certain licensed (and purchased) intangibles of ten times the amount received for the intangibles. Critics note the arbitrariness of this deemed sales figure.

Advocates of the sales method point out that any arbitrariness can be avoided sometimes because taxpayers exercise a degree of control over whether the look-through rules of the sales method are applied and, thus, over whether sales of certain foreign entities will be treated as the taxpayer's own for purposes of apportioning R&D expense. For example, the R&D Regulation provides that if a U.S. taxpayer and its controlled corporation enter into a bona fide cost-sharing arrangement for purposes of developing intangible property, then the controlled corporation's sales relating to the intangible property will not be treated as the taxpayer's for purposes of apportioning the taxpayer's R&D expense.

Critics of the sales method argue that the gross income-to-gross income method avoids the comparison of sales (or deemed sales) in all cases and, in addition is easier to use than the sales method, has been approved by U.S. courts, and had been used widely by U.S. taxpayers for many years.

Critics of the sales method also point out that the method seems to produce arbitrary results in some circumstances. For example, suppose that the sales method is used by a U.S. licensor who negotiates a large up-front license fee from a foreign company with the proviso that the fee will reduce future royalties. If the licensee makes few sales in the year in which the up-front fee is paid, most of the foreign-source income from the license will not cause R&D expense to be apportioned to foreign-source income.

On the other hand, the gross income-to-gross income method may encourage U.S. taxpayers to license technology to foreign manufacturers instead of utilizing the technology themselves to manufacture products for sale abroad. Assume that the before-tax return would be the same from these two alternatives. If the sales method were mandated, foreign sales would be taken into account in apportioning the R&D expense to foreign-source income in either case. If, however, the gross income-to-gross income method were used, the income from foreign sales would be taken fully into account only if the taxpayer chose to manufacture and sell directly.[34] If the taxpayer chose to license the relevant technology to others instead, foreign license fees only, likely equalling a small percentage of the licensee's foreign sales, would be taken into account in apportioning R&D expense to foreign income. The incentive under these circumstances to license technology rather than to manufacture and sell directly would be enhanced by the tax-free transfer of certain intangibles to related foreign entities permitted under Code section 367 (discussed below).

---

[34] In the case of the direct manufacturing and sales alternative, the gross income method would account for sales through foreign branches directly; the gross income method would generally account for sales of foreign subsidiaries indirectly upon the repatriation of subsidiary earnings.

Use of the gross income-to-gross income method also may, in contrast with the sales method, result in a smaller apportionment of R&D expense to foreign-source income when foreign operations are conducted through a subsidiary as compared to a branch. The reason is that gross income attributable to a foreign subsidiary generally includes only profits distributed to the U.S. parent and not retained for foreign investment. A U.S. parent generally can control the timing of these profit distributions and thus can potentially reduce gross income from foreign sources to zero in a given year and thereby avoid any allocation of R&D expense to foreign-source income. A foreign subsidiary's gross income is also net of depreciation, interest, and other indirect expenses. The gross income of the U.S. parent, on the other hand, includes all profits whether reinvested or not, and is not net of indirect expenses. Foreign branch income is a component of the U.S. parent's gross income. Whether operations are conducted through a foreign subsidiary or a foreign branch bears no relation to the connection between particular R&D activities and types of income. The gross income-to-gross income method's distinction between branch and subsidiary operations, therefore, seems unwarranted.[35]

In addition, the gross income-to-gross income method may give U.S. taxpayers a limited incentive to underprice technology transfers to related parties abroad when the technology is developed through substantial research expenditures. Code section 482 allows the IRS to correct any improper transfer prices, but it has proved difficult to administer in practice.

Breadth of product categories

Critics of the Regulation's R&D rules argue that the prescribed product categories are too broad. They point out that research which relates solely to a product sold in the United States may nonetheless be apportioned to foreign-source income when a second product, falling in the same product category as the first, happens to be sold abroad. For example, an apportionment to foreign-source income of R&D expense relating to bulldozers manufactured and sold solely in the United States may be required when the taxpayer manufactures and sells small gasoline engines for lawnmowers abroad because the bulldozers and lawnmower engines fall in the same product category.[36] As another example, a taxpayer performs basic pharmaceutical research in the United States in an effort to create new antibiotics. The taxpayer's U.S. plants produce a variety of antibiotics for the U.S. market, while the taxpayer's foreign plants produce only aspirin for foreign markets. Although the taxpayer does not use the basic research in producing aspirin, the taxpayer does not use it immediately in producing antibiotics, either.[37] Also, the taxpayer might begin making substantial foreign sales of any new drug its R&D creates. Nonetheless, under the R&D Regulation, antibiotics and aspirin are in the same product category, and the general rules of the Regulation would allocate

[35] At least in part for this reason, the R&D Regulation limits the application of the gross income-to-gross income method to cases when its results do not diverge too greatly from those of the gross sales method. See the discussion in the Present Law section, above.

[36] *See* paragraph (g) of Regulation, Example (4).

some of the R&D expense to foreign-source income unless the taxpayer met the burden of showing very limited or long-delayed application of the R&D abroad.

Critics of the R&D rules argue that the use of narrower product categories (for example, three-digit instead of two-digit SIC categories) should be permitted. Alternatively, they argue that allocation should be permitted on a project-by-project basis and product categories should be eliminated.

Narrower product categories might, however, eliminate the R&D rules' capacity to take into account for apportionment purposes that R&D sometimes contributes unexpected benefits. For instance, in the bulldozer/lawnmower example above, it is assumed that the R&D relating to the bulldozers yields no results applicable to the lawnmower engines. But in some circumstances, a taxpayer's bulldozer-related R&D might unexpectedly benefit its lawnmower engine line.

Also, the structure of the product categories Wholesale trade and Retail trade sometimes allows a taxpayer to apportion all its R&D expense relating to a product that sells both in the United States and abroad to U.S.-source income. This may be viewed as a mitigating factor in connection with the breadth of the product categories. For example, suppose a U.S. corporation manufactures and sells forklift trucks in the United States and distributes them abroad through a wholesaling subsidiary. The U.S. corporation performs R&D relating to the forklift trucks but none relating to wholesale trade. The manufacture and sale of forklift trucks in the United States belongs to the product category, Transportation equipment, but the wholesaling of the trucks abroad belongs to the product category, Wholesale trade (assuming that the wholesaling subsidiary performs no other functions with respect to the trucks and is not a domestic international sales corporation (DISC) for which the U.S. corporation is a related supplier of goods and services from any other of the U.S. corporation's product categories). None of the U.S. corporation's R&D expense attributable to the forklift trucks is allocable to the wholesaling subsidiary's sales abroad because those sales are in a different product category (Wholesale trade) from the product category to which the sale and manufacture of forklift trucks belong and to which the R&D relates (Transportation equipment).[38]

Treatment of basic research

The treatment of basic research expense under the R&D rules has also been questioned. The Regulation states that R&D that cannot be clearly identified with one or more product categories is to be divided among all product categories. One of the examples given in the Regulation (Example (15), at paragraph (g) of Regulation) indicates that the Internal Revenue Service might regard some basic research as not clearly identifiable with any product categories and, thus, properly divided among all product categories.

---

[37] If the expenditures in this case were for testing existing products rather than for developing new products, they would be related to income from those products. Such expenses are not subject to the allocation rules of the R&D Regulation (Treas. Reg. sec. 1.174-2(a)(1)). Therefore, such expenses would typically be deductible from U.S.—source income.

[38] *See* paragraph (g) of the Regulation, Example (6).

In the example, basic research expense incurred by a U.S. manufacturer of heating equipment is considered related to all the manufacturer's product categories and, as a result, is allocated in part to income from the manufacturer's foreign hotel subsidiary. Critics of the Regulation's R&D rules argue that this allocation is unfair. In their view, basic research expense generally should not be divided among all product categories. They argue that while basic research, by its nature, is less narrowly focused than applied or developmental research, basic research is frequently undertaken specifically in relation to one product or a group of products to the exclusion of others. Therefore, basic research expense should generally be divisible between one or a few of a taxpayer's product categories rather than all the taxpayer's product categories. Advocates of the R&D Regulation respond that it may be possible to allocate basic research expense in this manner under the Regulation as presently drafted. To do so, a taxpayer must show that his basic research *is* clearly identified with certain product categories. The fact that the basic research may relate to several of the taxpayer's product categories should not normally prevent the taxpayer from dividing the expense between fewer than all of his product categories since the R&D Regulation permits the aggregation of product categories for allocation purposes.

Complexity

Critics of the Regulation argue that the R&D Regulation is overly complex and lengthy. They state that assembling the data necessary to perform the allocation calculations is very time consuming and difficult. They question whether the additional revenue that might be collected under the Regulation is worth the expenditure of taxpayers' and the Federal Government's time and money in attempting to comply with and administer the Regulation. On the other hand, the R&D Regulation applies to few taxpayers. In 1976, for example, only 6,513 U.S. corporations claimed foreign tax credits. Moreover, much of the R&D Regulation's complexity arises from various options (such as the optional gross income methods of apportionment) that benefit the taxpayers that choose them.

G. Sourcing of Royalty and License Payments

Under the moratorium, U.S.-performed R&D expenses are deducted exclusively from U.S.-source income. On the other hand, royalty income from foreign affiliates attributable to this R&D is allocated exclusively to foreign sources. This mismatch in sourcing rules can lead to a double deduction for R&D expense as described above. If the moratorium is continued, this double deduction problem can be cured by treating all or part of royalty payments from foreign affiliates as U.S.-source income in situations where the parent deducts R&D exclusively from U.S.-source income. Of course, this approach would reduce the benefit of the moratorium. To protect against avoidance (of this approach) by taxpayers who did not require a royalty for intangibles, it would require amending the rules governing transfers of intangibles (Code sec. 367), as discussed below.

H. Tax-free Transfer and use of Intangibles Resulting from R&D

Some question the policy of tax incentives to encourage multinationals to do U.S. R&D when they may use the results of that R&D abroad tax-free. R&D produces intangible assets, including patents, know-how, and secret processes. U.S. companies may transfer the intangibles that their R&D produces to foreign subsidiaries without incurring U.S. tax under Code section 367. The foreign subsidiaries may generally use those intangibles (created in the United States) in active manufacturing for foreign markets without incurring U.S. tax. The principle of deferral generally prevents imposition of U.S. tax on the income of those foreign subsidiaries until they pay dividends to their U.S. parent corporations.

If a foreign subsidiary of a U.S. corporation manufactures in a country whose effective tax rate is lower than the U.S. rate, it will have a tax competitive advantage over U.S. companies that operate solely in the United States. A U.S. corporation with valuable intangible assets arising out of U.S. R&D may have a tax incentive to locate its manufacturing plants in low-tax foreign countries rather than in the United States. This will depend on whether the investment credit, accelerated depreciation, and other tax preferences provided to U.S. manufacturers are as valuable as deferral. In some cases, the tax advantage from establishing a new manufacturing plant outside the United States in a low-tax country may outweigh the economies of scale that arise from expanding an existing U.S. manufacturing plant.

In addition, if the foreign subsidiary of a U.S. corporation receives valuable intangible assets (the fruits of U.S. R&D) without paying for them, it has a competitive advantage over companies that operate solely in that foreign country. Those wholly local companies must pay for their intangible assets, either by incurring R&D expenses or by paying for intangible assets.

While this ability to transfer intangibles to a foreign subsidiary free of U.S. tax could be an incentive for foreign investment, expansion into foreign markets by U.S. firms may benefit the U.S. economy. Proponents of the current rules that allow tax-free transfers argue that such expansion leads to increased sales and more rapid growth of U.S. multinational firms, which increases their ability to undertake research and reduces their per unit administrative and other fixed costs. All this leads to an increase in profits and a consequent increase in investment both in the United States and abroad. Moreover, the movement of investment funds overseas causes the value of the dollar to decline in foreign exchange markets, which tends to encourage U.S. exports. In addition, they argue that in many cases, foreign subsidiaries of U.S. firms tend to use U.S.-manufactured goods (and components) in their operations. Moreover, it is extremely difficult to value intangibles. Therefore, a tax on their value upon their transfer to a foreign subsidiary is difficult to calculate. An approach that imposed tax on foreign manufacturing subsidiaries of U.S. corporations to the extent that their income arose from U.S.-produced intangibles would involve evaluating the contribution of intangibles to profit, another difficult question of valuation. Alternatively, this kind of approach could involve formulary attribution of profit to intangible assets.

○